

From the INTERNATIONAL BUREAU

**PCT**NOTICE INFORMING THE APPLICANT OF THE  
COMMUNICATION OF THE INTERNATIONAL  
APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

To:

MODIANO, Guido  
Modiano Gardi Patents  
Via Meravigli, 16  
I-20123 Milano  
ITALIE

Date of mailing ( <i>day/month/year</i> ) 08 July 2004 (08.07.2004)		IMPORTANT NOTICE	
Applicant's or agent's file reference 27090/GM/ps			
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Applicant CANALINI, Maria, Grazia			

1. Notice is hereby given that the International Bureau has **communicated**, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this notice:

AU, AZ, BY, CH, CN, CO, DZ, EP, HU, JP, KG, KP, KR, MD, MK, MZ, RU, TM, US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:

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The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this notice is a copy of the international application as published by the International Bureau on 08 July 2004 (08.07.2004) under No. WO 2004/056328

4. **TIME LIMITS for filing a demand for international preliminary examination and for entry into the national phase**

The applicable time limit for entering the national phase will, **subject to what is said in the following paragraph**, be **30 MONTHS** from the priority date, not only in respect of any elected Office if a demand for international preliminary examination is filed before the expiration of **19 months** from the priority date, but also in respect of any designated Office, in the absence of filing of such demand, where Article 22(1) as modified with effect from 1 April 2002 applies in respect of that designated Office. For further details, see *PCT Gazette* No. 44/2001 of 1 November 2001, pages 19926, 19932 and 19934, as well as the *PCT Newsletter*, October and November 2001 and February 2002 issues.

In practice, **time limits other than the 30-month time limit** will continue to apply, for various periods of time, in respect of certain designated or elected Offices. For **regular updates on the applicable time limits** (20, 21, 30 or 31 months, or other time limit), Office by Office, refer to the *PCT Gazette*, the *PCT Newsletter* and the *PCT Applicant's Guide*, Volume II, National Chapters, all available from WIPO's Internet site, at <http://www.wipo.int/pct/en/index.html>.

For filing a demand for international preliminary examination, see the *PCT Applicant's Guide*, Volume I/A, Chapter IX. Only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination (at present, all PCT Contracting States are bound by Chapter II).

It is the applicant's **sole responsibility** to monitor all these time limits.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer  Ellen Moyse
Facsimile No.+41 22 740 14 35	Facsimile No.+41 22 338 89 75

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(71) Applicant and  
(72) Inventor: CANALINI, Maria, Grazia [IT/IT]; Piazza Dante, 23, 41024 Le Piane di Lama Mocogno (IT).

(74) Agent: MODIANO, Guido; Modiano Gardi Patents, Via Meravigli, 16, I-20123 Milano (IT).

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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

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(54) Title: HAIR TREATMENT LOTION

(57) Abstract: A hair treatment lotion comprising green tea, gentian and geranium mixed with at least one solution medium and suitable to be used for hair loss prevention treatments and/or to facilitate the growth of new hair.

## HAIR TREATMENT LOTION

### Technical Field

The present invention relates to a hair treatment lotion.

### Background Art

5 It is known that in recent years the problem of baldness, i.e., gradual hair loss, has become very important and a highly topical issue, since it affects many people, both men and women.

Baldness can in fact cause considerable discomfort in the people that it affects, both on an aesthetic level and sometimes on a psychological level.

10 As a consequence of the diffusion of this phenomenon, various medical, surgical and/or cosmetological therapies have been developed and proposed in an attempt to limit and slow hair loss.

Some treatments, for example, propose medical and/or cosmetological therapies of various kinds depending on the extent of the loss and thinning:  
15 these therapies allow to achieve an initial stabilization of hair loss a few months after the beginning of the treatment.

Many lotions having different compositions and different methods of application are in fact currently commercially available.

These lotions are usually recommended for stopping hair loss and/or  
20 facilitate hair regrowth.

However, these therapies do not allow to achieve a permanent result, since when the treatment is suspended the phenomenon reappears in a form that is generally more acute and can be contained only by resorting to surgical procedures.

25 Moreover, some of these lotions can cause several side effects in case of particular sensitivity to the substances they contain and can have contraindications for use by individuals who have certain disorders, such as hypertension, migraines or vascular problems in general.

Intolerance to the substances contained in known lotions has caused  
30 for example transient itching localized to the scalp or diffused over the

entire body, skin inflammations caused by irritations or eczemas of an allergic nature: more rarely there have been cases of headache, vertigo or hypertrichosis.

In all these cases it is generally necessary to suspend the treatments immediately and therefore any benefits achieved are lost.

As an alternative, particularly for individuals with full-blown baldness, surgical procedures are proposed which can be performed according to several methods and in general consist in repositioning healthy hair in bald areas, removing and reimplanting scalp portions so as to restore a harmonious and aesthetically pleasant hair distribution.

These procedures are generally performed under local anesthetic and can be more or less invasive depending on the method used.

However, these known procedures are not free from drawbacks, including the fact that they do not ensure permanent and durable results, since rather often the implants of synthetic hair are rejected within 6-12 months of the procedures, and a new surgical procedure therefore becomes necessary to remove the rejected hair.

Further, these procedures cannot be performed on all individuals affected by baldness.

In order to reduce the risk of postoperative complications, such as infections or the like, it is in fact necessary to perform preventive medical therapies that use for example lotions based on cortisone or antibiotic substances, which cannot be used by certain individuals who have particular allergies or specific disorders.

## Disclosure of the Invention

The aim of the present invention is to eliminate the drawbacks noted above of known treatments and procedures, by devising a hair treatment lotion that allows to solve permanently the problem of baldness and to promote hair regrowth and can be used by all individuals affected by hair loss, without any restriction of use due for example to contraindications of

use or side effects.

Within this aim, an object of the present invention is to allow easy and practical application on the part of the affected individuals.

In view of this aim and this and other objects that will become better  
5 apparent hereinafter, according to the present invention a hair treatment lotion is provided which is characterized in that it comprises green tea, gentian and geranium mixed with at least one solution medium.

The solution medium can be constituted by an aqueous base, a physiological solution, or the like.

10 The aqueous base can be constituted preferably by distilled water (H<sub>2</sub>O).

The green tea is used in leaf form; the gentian is used in the form of dried and chopped root; the geranium is used as essence.

The green tea, gentian and geranium essence are preferably present in  
15 the following mutually independent quantities for every 1500 ml of H<sub>2</sub>O:

green tea, 0.1 to 0.5 g; gentian, 0.001 g to 0.3 g; geranium essence, 20 to 50 drops.

Each one of the geranium essence drops has a weight comprised between 0.01 g and 0.07 g.

20 Conveniently, by mixing said components the lotion is ready for use.

As is known, each hair is composed of a so-called shaft, which protrudes partially from the scalp, and of a root or bulb, which is inserted obliquely in the scalp.

The root is formed by a recess in which the vessels and nerves that  
25 constitute the papilla are arranged.

The fibers that constitute hair form through a process of keratinization of the epithelial cells that are in contact with the papilla (matrix).

Hair is in fact constituted by a keratin shaft formed by fibers and  
30 fibrils formed by chains of amino acids coiled in a spiral and bonded by

sulfur bridges.

In normal conditions, the sebum produced by the sebaceous glands that are present in the scalp drips along the hair, constituting a natural protection against external agents.

5 In cases of hyperseborrhea, i.e., of excessive sebum production, there are negative effects on hair health; the excess of sebum in fact over time obstructs the insertion point of the hair in the scalp, choking the cells that constitute the hidden part of the shaft, the root and the sebaceous gland associated with the hair.

10 In these cases, the metabolic activity of the cells is seriously compromised and hair weakens until it falls; as a consequence of these phenomena, the cells of the matrix are no longer capable of generating a new hair.

Conveniently, it has been found that the lotion according to the  
15 invention allows to restore conditions that are suitable for the growth of new hair; the green tea, gentian and geranium act synergistically, mutually enhancing their respective properties.

Green tea is in fact used to remove the grease that obstructs the pores of the scalp from which hair protrudes; gentian, rich in stimulating active  
20 ingredients, acts on the sebaceous glands, stimulating resumption of normal activity; finally, geranium has active ingredients that affect the cells of the matrices in order to stimulate the growth of new hair.

The lotion according to the invention is applied advantageously in hair loss treatments, such as hair loss prevention treatments and/or  
25 treatments for facilitating the growth of new hair.

The lotion can be used to treat baldness of any degree and extent and has no contraindication of use or any side effect.

The treatment consists in performing, for a first period, one daily application of the lotion, massaging the portion of scalp being affected.

30 Subsequently, it is sufficient to perform a maintenance treatment,

which provides for one weekly application of the lotion for a few additional months.

The time required for growth of new hair is linked to the time elapsed since the "death" of the bulb, and therefore the first hair to appear is the hair lost most recently and the last hair is the hair that fell longest ago.

The first results are apparent 2-3 months after starting the treatment; fine hairs appear initially, becoming stronger over time and producing the final hair.

The following examples are given only by way of illustration of the present invention and must not be understood as limiting the scope of the present invention as defined by the appended claims.

#### EXAMPLE 1

A first hair treatment lotion that can be obtained from a mixture of the following substances:

15	Green tea	0.15 g
	Gentian	0.10 g
	Geranium essence	30 drops
	H <sub>2</sub> O	1500 ml

#### EXAMPLE 2

20 A second hair treatment lotion that can be obtained from a mixture of the following substances:

	Green tea	0.20 g
	Gentian	0.12 g
	Geranium essence	36 drops
25	H <sub>2</sub> O	1500 ml

#### EXAMPLE 3

A third hair treatment lotion that can be obtained from a mixture of the following substances:

	Green tea	0.30 g
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Gentian	0.15 g
Geranium essence	40 drops
H <sub>2</sub> O	1500 ml

The disclosures in Italian Patent Application No. MO2002A000393  
5 from which this application claims priority are incorporated herein by  
reference.



CLAIMS

1. A hair treatment lotion, characterized in that it comprises green tea, gentian and geranium mixed with at least one solution medium.
2. The lotion according to claim 1, characterized in that said solution  
5 medium is an aqueous base, a physiological solution or the like.
3. The lotion according to claim 2, characterized in that said aqueous base is distilled water (H<sub>2</sub>O) or the like.
4. The lotion according to claim 1, characterized in that said green tea is in leaf form.
- 10 5. The lotion according to claim 4, characterized in that said green tea leaves are dried.
6. The lotion according to claim 1, characterized in that said gentian is in root form.
7. The lotion according to claim 6, characterized in that said gentian  
15 root is dried and chopped.
8. The lotion according to claim 1, characterized in that said geranium is in essence form.
9. The lotion according to one or more of the preceding claims, characterized in that said green tea is present in quantities that are  
20 comprised between 0.1 g and 0.5 g for every 1500 ml of said solution medium.
10. The lotion according to one or more of the preceding claims, characterized in that said gentian is present in amounts comprised between 0.001 g and 0.3 g for every 1500 ml of said solution medium.
- 25 11. The lotion according to one or more of the preceding claims, characterized in that said geranium essence is present in amounts comprised between 20 and 50 drops for every 1500 ml of said solution medium.
12. The lotion according to claim 11, characterized in that each one of said drops has a weight comprised between 0.01 g and 0.07 g.
- 30 13. The lotion according to one or more of the preceding claims,

characterized in that said green tea, said gentian, said geranium essence and said H<sub>2</sub>O are present in the following quantities:

Green tea	0.20 g
Gentian	0.12 g
5 Geranium essence	36 drops
H <sub>2</sub> O	1500 ml

14. The use of a lotion according to one or more of the preceding claims for hair loss prevention treatments.

15. The use of a lotion according to one or more of the preceding  
10 claims for treatments suitable to facilitate the growth of new hair.

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 03/14124

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K7/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61Q A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN & JP 11 139943 A (YOKOHAMA TSUNETAKA; HANDA KAYOKO), 25 May 1999 (1999-05-25) abstract	1-15
A	DATABASE WPI Derwent Publications Ltd., London, GB; AN 1994-124075 XP002276617 "Tonic agent preventing baldness-contains extract of Cucurbitaceae, Phellodendron, Gentianaceae, etc. plants" & JP 06 072828 A (HATANO T.), 15 March 1994 (1994-03-15) abstract	1-15
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☒ Further documents are listed in the continuation of box C.☐ Patent family members are listed in annex.

## \* Special categories of cited documents:

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\*&amp;\* document member of the same patent family

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Nopper-Jaunky, A

## INTERNATIONAL SEARCH REPORT

International Application No

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>DATABASE WPI Derwent Publications Ltd., London, GB; AN 2001-571151 XP002276618 "Ginkgo health-care tea." &amp; CN 1 303 606 A (LIU L.), 18 July 2001 (2001-07-18) abstract</p> <p>-----</p>	1-15

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 11139943	A	25-05-1999	NONE
JP 6072828	A	15-03-1994	NONE
CN 1303606	A	18-07-2001	NONE